IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

WSOU INVESTMENTS, LLC D/B/A BRAZOS LICENSING AND DEVELOPMENT, *Plaintiff,*	§	**CIVIL ACTION 6:20-cv-00541-ADA**
	§	**CIVIL ACTION 6:20-cv-00544-ADA**
v.	§	
HUAWEI TECHNOLOGIES USA INC. ET AL., *Defendants.*	§	

PLAINTIFF'S OPENING CLAIM CONSTRUCTION BRIEF

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Plaintiff WSOU Investments, LLC d/b/a Brazos License and Development ("WSOU") submits the following opening claim construction brief pursuant to the Order Governing Proceedings ("OGP") and the Scheduling Order entered in this case.

I. Legal Standards

A. Claim Construction Generally

This Court recently explained that "[t]he 'only two exceptions to [the] general rule' that claim terms are construed according to their plain and ordinary meaning are when the patentee (1) acts as his/her own lexicographer or (2) disavows the full scope of the claim term either in the specification or during prosecution." *CloudofChange, LLC v. NCR Corp.*, No. 6-19-CV-00513-ADA, 2020 WL 4004810, at *2 (W.D. Tex. July 15, 2020) (quoting *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). "To act as his/her own lexicographer, the patentee must 'clearly set forth a definition of the disputed claim term,' and 'clearly express an intent to define the term.'" *Id.* (quoting *Thorner,* 669 F.3d at 1365). And "[t]o disavow the full scope of a claim term, the patentee's statements in the specification or prosecution history must represent 'a clear disavowal of claim scope.'" *Id.* (quoting *Thorner,* 669 F.3d at at 1366). "Accordingly, when 'an applicant's statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.'" *Id*. (quoting *3MInnovative Props. Co.* v. *Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013)).

B. Indefiniteness

The Patent Act requires claims to particularly point out and distinctly claim the subject matter regarded as the inventions. 35 U.S.C. § 112, ¶ 2. To satisfy this requirement, the claim must be read in light of the intrinsic evidence to determine whether it informs one of skill in the art at the time of the invention "about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910-11 (2014). To establish that a claim is indefinite, a patent challenger must prove indefiniteness by clear and convincing evidence. *Sonix Tech. Co. v. Publ'ns Int'l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

II. U.S. Patent No. 8,429,480 (Case No. 6:20-cv-00544-ADA)

A. Overview of the '480 patent

U.S. Patent No. 8,429,480 ("the '480 patent") generally relates "to wireless communication systems, methods, devices and computer program products and, more specifically, . . . to techniques for providing automatic repeat request functionality between a base station and a user equipment." '480 patent, 1:14−19. The '480 patent teaches that a wireless transmission between a wireless unit or "UE" and a base station or "eNB" sometimes require multiple re-transmissions (*e.g.*, due to unsuccessful reception of a previous transmission). (2:4−62; 4:66−5:9.) Certain conventional approaches had drawbacks that degraded the user experience, particularly for Voice over Internet Protocol (VoIP) applications. Typically, "5.77% of the VoIP packets [were] not correctly received" (7:40−41), yet a re-transmission percentage of 2% or less was considered an exemplary threshold to "achieve a non-objectionable user experience" for VoIP (7:41−44).

To address this and other technical problems, the '480 patent discloses exemplary embodiments which dynamically allocate resources for their optimal use. In the context of uplink or "UL" transmissions, for example, "exemplary embodiments . . . provide a method, apparatus and computer program product(s) to enable UL load balancing between available HARQ processes, with the technical effect of enhancing wireless link resource usage." *Id.*, 7:49−53. In certain embodiments, this is achieved, at least in part, by dynamic allocation upon detection of a collision. One such example is disclosed with reference to Fig. 3, reproduced below.

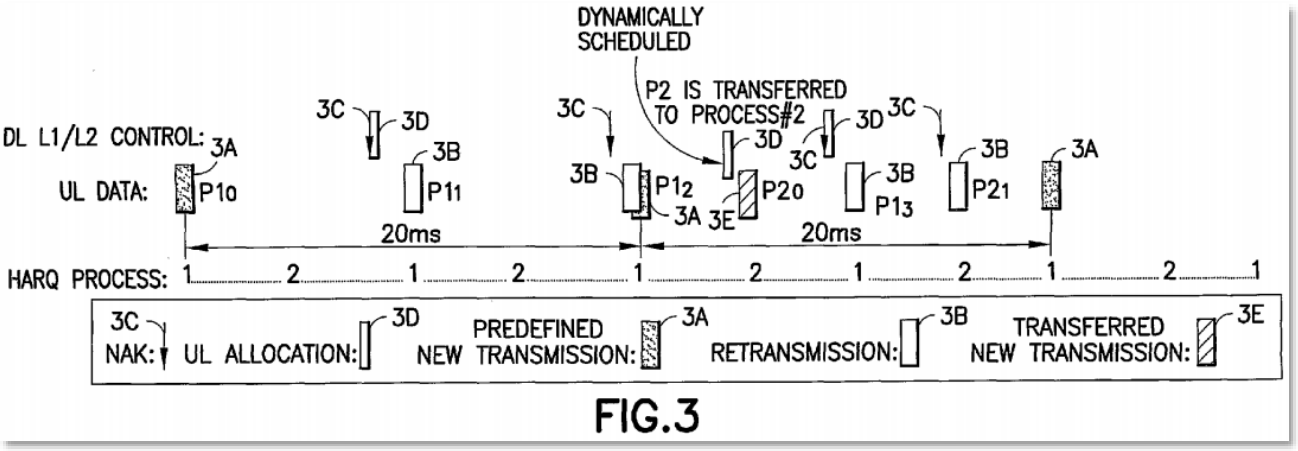

FIG.3

A collision may be detected, for example, "when a new transmission packet and re-transmission packet from one UE 10 occur within one HARQ process[.]" (6:38−43.) Under such circumstances, "the re-transmission packet is transmitted during the time at which a collision would occur, and the new transmission packet is dynamically scheduled to a new resource in another, different HARQ process." (*Id*.)

The '480 patent identifies advantages achieved by certain embodiments. For example, certain techniques enable the UE "to distribute its UL packet load into all available HARQ processes, and [to] make full use of the HARQ processes and the physical resources." (7:12−17.) This may "enable[] more re-transmissions to occur for, as an example, VoIP packets." (*Id*.)

B. Sole disputed term for which Huawei proposes a construction

1. "hybrid automatic repeat request process" (claims 1, 2, 5, 6, 7, 9, 11−19)

WSOU's Position	Huawei's Position
Plain and ordinary meaning.	"process implementing a stop and wait protocol and soft combining where in the uplink a UE adjusts the PUSCH transmission according to PDCCH and/or PHICH information as detected by the UE"

The phrase "hybrid automatic repeat request process" (sometimes abbreviated in the '480 patent as "HARQ") is self-defining and requires no construction here, particularly in view of the informative context in which this term is recited, the remainder of the intrinsic evidence, and Huawei's relevant party admissions (discussed below). Claim 1, for example, recites "detecting with a hybrid automatic repeat request function a collision between an uplink packet re-transmission and a new uplink packet transmission within a hybrid automatic repeat request process." '480 patent, 9:59−62. In this context, at a minimum, the claimed "hybrid automatic repeat request process" involves "a new uplink packet transmission" that may potentially collide with "a hybrid automatic repeat request function." This claim language encompasses, for example, certain aspects of a "non-limiting" embodiment described with reference to Figure 3 of the '480

patent, as discussed above. *See supra*, § II.A (generally discussing '480 patent at Fig. 3 and 6:38−7:53). When understood in light of the intrinsic evidence, this term requires no construction.

Huawei's claim construction here should be rejected for multiple independent reasons. First, Huawei's proposed construction here is inconsistent with party admissions it offered in its non-instituted petition for *inter partes* review ("IPR") still pending before the United States Patent and Trademark Office ("USPTO"), which purports to challenge the validity of the same '480 patent. Ex. A, *Huawei Technologies Co., Ltd. v. WSOU Investments LLC d/b/a Brazos Licensing and Development*, IPR2021-00229, Petition. There, immediately after referencing the *Markman* process of this proceeding and acknowledging that the UPSTO applies the same "*Phillips* standard" of claim construction, Huawei stated "there are no instances of lexicography in the '480 patent, and no party has alleged instances of unique, specialized terms in the claims requiring a departure from the plain and ordinary meaning of the claim language." *Id.*, 10.

Notwithstanding that party admission, Huawei now inconsistently argues here that "hybrid automatic repeat request process" should be construed by the Court (though not the USPTO) to mean "process implementing a stop and wait protocol and soft combining where in the uplink a UE adjusts the PUSCH transmission according to PDCCH and/or PHICH information as detected by the UE." Huawei's vacillation invokes the oft-quoted adage, which under the circumstances may be restated as, "[a] patent may not, like a nose of wax, be twisted one way to avoid [infringement] and another to find [invalidity]." *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) (citations and internal quotation marks omitted).

Second, Huawei's inconsistent position on claim construction should also be rejected as adding limitations neither required by claim terms nor unambiguously required by either the specification or the prosecution history. *See, e.g., Cont'l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 796–97 (Fed. Cir.), *cert. denied*, 140 S. Ct. 648 (2019); *Dayco Prods., Inc. v. Total Containment, Inc.*, 258 F.3d 1317, 1327 (Fed. Cir. 2001). For example, Huawei errs in seeking to limit the disputed term to require "… where in the uplink a UE adjusts the PUSCH transmission according to PDCCH and/or PHICH information as detected by the UE." As Huawei

acknowledged before the USPTO, the '480 contains no explicit and unambiguous requirement for an *adjustment* that must occur within the uplink itself, much less a specific adjustment to a "PUSCH transmission according to PDCCH and/or PHICH information as detected by the UE." Those extraneous terms appear nowhere in the claims and are not unambiguously required by the intrinsic evidence. Indeed, the word "adjusts" does not appear anywhere in the '480 patent.

Huawei compounds its error in seeking to add the extraneous requirements that the claimed process must itself implement *both* (1) "a stop and wait protocol" *and* (2) "soft combining." The phrases "stop and wait" (abbreviated SAW) and "soft combining" both appear but once in the '480 patent and, even then, only in the same paragraph of the background section. '480 patent, 2:6−10. Huawei cannot reasonably argue here that the passing reference to those words constitutes lexicography for this term, given Huawei's contrary assertion to the USPTO. Ex. A, 10 ("there are no instances of lexicography in the '480 patent"). Even if one were to set aside Huawei's self-defeating party admission, Huawei's proposed construction here would commit the "cardinal sin" of importing limitations from the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320 (Fed. Cir. 2005) (it is a cardinal sin of patent law to read a limitation from the specification into the claims). The error is particularly egregious here because those words appear only in the *background* section of the '480 patent, which disparages drawbacks of prior approaches.

Third, Huawei's construction for "hybrid automatic repeat request" is also undermined by the purported expert testimony Huawei submitted and repeatedly relied upon in its IPR. *See generally* Ex. B, Decl. of Mr. Peter Rysavy. The Court can and should take judicial notice that the entire declaration of Mr. Rysavy constitutes a party admission by Huawei. Mr. Rysavy testified that "HARQ processes combines principles of standard ARQ (automatic repeat request) and FEC (forward error correction) processes" and that "[s]tandard ARQ processes provide error control through acknowledgment messages." Ex. B ¶ 30. Wholly absent from Mr. Rysavy's declaration is any mention of the specific combination of extraneous requirements which Huawei now seeks to add in this proceeding only.

It is also significant that Mr. Rysavy's declaration testimony does not attempt to explain why the alleged prior art processes he identified qualified as a "hybrid automatic repeat request process" as claimed. He simply pointed to use of the acronym "HARQ" in the asserted references as being independently sufficient. Citing that declaration testimony, Huawei advances the same position in its IPR petition. In view of arguments advanced in the parallel IPR, Huawei should not be permitted here to newly concoct inconsistent and extraneous requirements for the claimed "hybrid automatic repeat request process," especially given that Huawei's own literature repeatedly confirms use of what Huawei itself refers to as "HARQ" processes.

Fourth, Huawei's additional limitations are inconsistent with the 3GPP specification repeatedly referenced in the '480 patent. For example, the '480 patent expressly references "[a] number of parallel HARQ processes" that are "supported in 3GPP TS 36.321 v.8.2.0 (2008 May)." '480 patent 4:66−5:4. In discussing certain aspects of its HARQ processes, the referenced 3GPP specification states that "if this is the very first received transmission for this HARQ process [then] a new transmission is indicated for this HARQ process[,] else, a retransmission is indicated for this HARQ process."[1] The document further states that "if a *new transmission* is indicated for this HARQ process [then] replace the data currently in the soft buffer for this HARQ process with the received data" and if, instead, "a *retransmission* is indicated for this HARQ process" and "the data has not yet been successfully decoded," only then does the HARQ process "*combine* the received data with the data currently in the soft buffer." *Id.* (emphasis added). At a minimum, the above statements from the referenced 3GPP specification confirm that so-called "soft combining" is not necessarily implemented in every HARQ process.[2] This further underscores Huawei's error in seeking to add an extraneous "soft combining" requirement, even though the disputed phrase is recited in the context of "*a new* uplink packet transmission." '480 patent, 9:59−62.

[1] Ex. C, 17, *available at* https://www.3gpp.org/ftp/Specs/archive/36_series/36.321/36321-820.zip.

[2] 3GPP documentation also confirms elsewhere that, even for retransmissions, HARQ processes can be implemented *with or without* soft combining. *See, e.g.*, Exhibit D, *available at* ftp://www.3gpp.org/tsg_ran/WG1_RL1/TSGR1_14/Docs/PDFs/R1-00-0869.pdf, at p. 1.

For multiple reasons, therefore, the Court should reject Huawei's proposed construction as impermissibly seeking to add extraneous limitations that are neither required by claim terms nor unambiguously required by intrinsic evidence.

C. Huawei failed to disclose and hence preserve any indefiniteness theory

2. "the resources are persistently allocated for transmitting the new uplink packet transmission" (claim 2);

"resources are persistently allocated for transmitting the new uplink packet transmission" (claims 6, 9);

"persistently allocating a resource for transmitting the new packet transmission" (claim 12); and

"a resource is persistently allocated for transmitting the new packet transmission" (claims 15 and 18)

WSOU's Position	Huawei's Position
Plain and ordinary meaning.	Indefinite.

While Huawei purports to have preserved the right to raise an indefiniteness challenge to each of the four above phrases, Huawei has failed to provide sufficient notice as to any indefiniteness theory for the claim language identified. At most, Huawei's Invalidity Contentions merely provide a bulleted list of claim language which includes the above phrases (among others). Ex. E, Huawei's Invalidity Contentions (dated Dec 7, 2020), at 62−64. Huawei introduced its bulleted list with the following conclusory and ambiguous statement: "based on the claim terms identified below, at least the following Asserted Claims of the 480 Patent may be invalid under 35 U.S.C. § 112 (pre-AIA) as lacking a written description and/or enabling disclosure commensurate with the alleged scope of the claims, and as being indefinite[.]" *Id.* That single, conclusory statement is *literally all* that Huawei opted to disclose in connection with its present challenge.

Because Huawei failed to provide *any* notice concerning why it contends the claim language it now seeks to challenge is indefinite, the alleged indefiniteness objections to the above four phrases should each be deemed waived. Moreover, WSOU is prejudiced in its ability to brief this issue here because it has been provided no argument to which it may consider and rebut.

Huawei should not be allowed to lie behind the log on this dispute (injected by Huawei alone) and then force WSOU to relegate its entire argument on this issue to its reply only.

III. U.S. Patent No. 9,084,199 (Case No. 6:20-cv-00541-ADA)

A. Overview of the '199 patent

U.S. Patent No. 9,084,199 ("the '199 patent") generally describes techniques for generating "quality metrics" that may be used, for example, to track the quality of a signal path between a wireless unit and a base station. The Abstract summarizes an example embodiment as follows:

> The base station may include a CQI component that utilizes a received Channel Quality Indicator (CQI) signal from the wireless unit to generate CQI quality metrics based on the quality of the received signal. Also, the CQI quality metrics may be compared to different thresholds to adjust various system configurations in the base station. The base station may also provide feedback to the wireless unit with the updated system configurations. This technique allows CQI quality metrics to be utilized to adjust system configurations dynamically and enhance the operation of a wireless system.

'199 patent, Abstract; *see also id.*, 2:55−4:19, 5:14−7:24. Figure 1 is reproduced below.

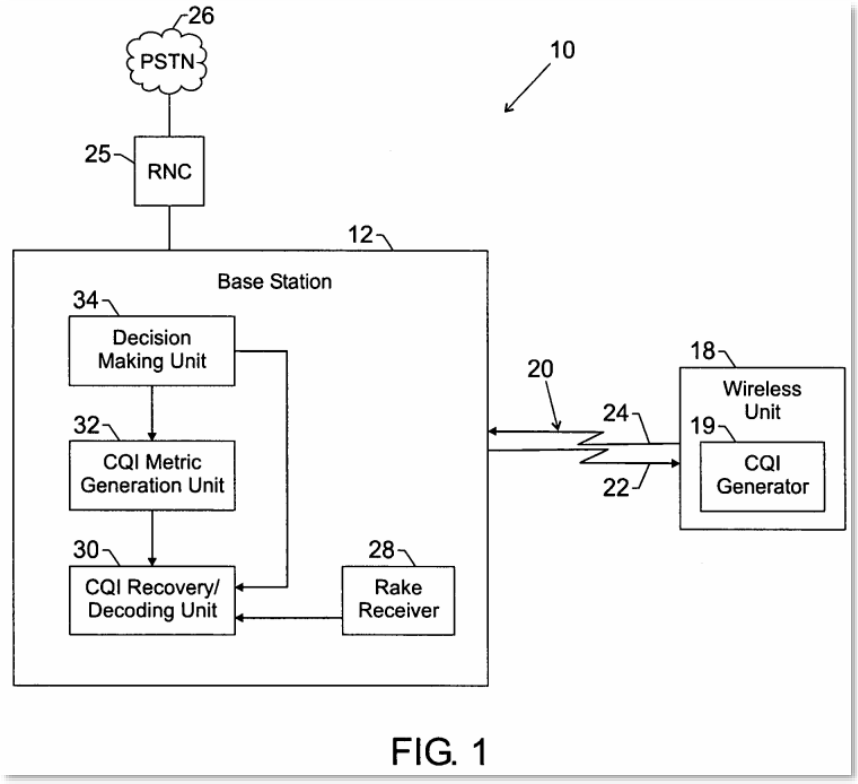

FIG. 1

B. Disputed terms of the '199 patent, which only Huawei seeks to construe

1. "associated with a quality of the received CQI" (claims 1 and 9); and "associated with a quality of the received channel quality indicator (CQI)" (claim 15);

1. WSOU's Position	Huawei's Position
Plain and ordinary meaning.	"associated with a quality of received CQI channel"

The phrase "associated with a quality of the received CQI" (claims 1 and 9) requires no construction. The phrase uses the definite article "the" in making antecedent reference to the first instance where "received channel quality indicator (CQI)" is recited. That the terms recited in this phrase require no construction is confirmed by the fact that Huawei repeats most of the terms nearly verbatim in its construction. Huawei errs, however, in seeking to remove the definite article "the" from its construction and introducing an extraneous term "channel." On its face, Huawei's construction appears to be an improper attempt to disconnect the disputed phrase from its clear antecedent reference.

Claim 15 differs from claims 1 and 9 in that its respective "associated" phrase is the first instance in which the CQI term is introduced. Huawei's construction is also improper as to claim 15 at least because Huawei (1) offers no definition for any term, (2) drops the article "the" altogether, without proposing any replacement article, and (3) introduces an extraneous term "channel," which is neither required by claim terms nor unambiguously required by either the specification or the prosecution history. *See, e.g., Cont'l Circuits,* 915 F.3d at 796–97; *Dayco Prods.,* 258 F.3d at 1327. While WSOU would not be opposed to interpreting the article "the" to mean "a" in the context of claim 15 (i.e., "associated with a quality of a received channel quality indicator (CQI)"), WSOU presently cannot agree to Huawei's proposed construction, particularly in the absence of Huawei explaining how its inclusion of the extraneous term "channel" would affect the scope of claim 15, if at all.

2. "dynamically adjust a CQI channel configuration based on the comparison" (claims 1, 9)

1. WSOU's Position	Huawei's Position
Plain and ordinary meaning.	"a closed-loop process which dynamically adjusts a CQI channel configuration based upon the comparison of the short term or long term quality metrics"

The phrase "dynamically adjust a CQI channel configuration based on the comparison" (claims 1 and 9) requires no construction. For both claims 1 and 9, the phrase uses the definite article "the" to make antecedent reference to a respective comparison recited earlier in the claim as, "comparing at least one of quality metrics to a quality setting."

Huawei's error is compounded for this term. Huawei first errs in seeking to add the extraneous requirement of "a closed-loop process which …." The couplet "closed loop" appears but once in the '199 patent, though not as an unambiguous requirement for all embodiments. In describing an example embodiment, the '199 patent states, "the decision making unit 34 *may* provide a closed loop approach that dynamically updates system configurations in the base station 12 and wireless unit 18 to improve the overall system performance." '199 patent, 7:1−5 (emphasis and underlining added). Here, use of the word "may" (*id.*) in describing an *optional* aspect of an "exemplary embodiment" (*id.*, 4:24) defeats the argument that the claimed invention unambiguously requires a closed-loop process. To hold otherwise would commit the "cardinal sin" of importing as limitations mere exemplary disclosure from the specification. *Phillips*, 415 F.3d at 1320; *see also Cont'l Circuits,* 915 F.3d at 796–97; *Dayco Prods.*, 258 F.3d at 1327.

Huawei's attempt to import a limitation from the specification should also be rejected as inconsistent with its party admissions offered in its non-instituted IPR petition still pending before the USPTO, which purports to challenge the validity of the same '199 patent. Ex. F, *Huawei Technologies Co., Ltd. v. WSOU Investments LLC d/b/a Brazos Licensing and Development*, IPR2021-00227, Petition. There, immediately after referencing the *Markman* process of this proceeding and acknowledging that the UPSTO now applies the same "*Phillips* standard" of claim construction, Huawei stated "there are no instances of lexicography in the '199 patent, and no party

has alleged instances of unique, specialized terms in the claims requiring a departure from the plain and ordinary meaning of the claim language." *Id.*, 7.

Huawei also errs in seeking to newly require that the claimed comparison must be "based upon … the short term or long term quality metrics." Claim 1 recites, "the quality metrics comprise short-term soft decision quality metrics and long-term soft decision quality metrics." Claim 9 similarly recites, "wherein the soft decision quality metrics comprise short-term quality metrics and long-term quality metrics." Here, use of the word "comprise" "raises a presumption that the list of elements is nonexclusive." *Dippin' Dots, Inc. v. Mosey*, 476 F.3d 1337, 1343 (Fed. Cir. 2007); *see also Bd. of Regents of Univ. of Texas Sys. v. A123 Sys., Inc.*, No. 3:06-CV-1655-B, 2011 WL 1135115, at *16–*17 (N.D. Tex. Mar. 29, 2011) (construing term "X comprises …" to mean that X had what was recited and could have additional ingredients) (citing *Dippin' Dots,* 476 F.3d at 1343. Thus, under a plain reading of the claim language, the claimed "quality metrics" includes, *but is not necessarily limited to*, short-term and long-term quality metrics.[3]

Both claims 1 and 9 does not expressly require that the "quality metrics" used for the claimed "comparing" must include those deemed "short term" or "long term." This indifference in claim 1 is reflected in the generalized recitation, "comparing *at least one of the quality metrics* to a quality setting." '199 patent, 15:50−51 (claim 1). Claim 9 similarly recites, "means for comparing *at least one of [the] quality metrics* to a quality setting."[4] *Id.*, 16:24−25 (claim 9). While the claim language encompasses scenarios where at least one "short-term" or at least one "long-term" quality metric is used for the claimed "comparing," a comparison involving *any* "one of the quality metrics" will suffice, regardless of whether that comparison involves the listed "short-term" or "long-term" quality metrics. This is because the claimed "comparing" is directed

[3] That the '199 patent contemplated quality metrics other than "short-term" and "long-term" is evidenced, for example, by the statement, "the CQI components may generate soft decision metrics, such as short-term quality metrics and long-term quality metrics." '199 patent, 5:1−2.

[4] The Court can and should take judicial notice that claim 9 contains a clerical error in that it appears to be missing the word "the" in the phrase "means for comparing at least one of the quality metrics …." This understanding appears to be undisputed.

to the "quality metrics" *in general*; and, as explained above, the claim language uses the word "comprise" to signal an *open-ended* list for the "quality metrics" term. For the foregoing reasons, the Court should reject Huawei's impermissible rewrite of the disputed phrases. No construction is required for the disputed phrase.

3. "generated by filtering frame based quality metrics over a plurality of frames" (claim 1)

"generated by filtering frame based quality metrics over a period of more than one frame" (claim 9)

2. WSOU's Position	Huawei's Position
Plain and ordinary meaning.	"created by processing frame based quality metrics over a plurality of frames in order to reject those long-term soft decision quality metrics that are unwanted"

The phrases "generated by filtering frame based quality metrics over a plurality of frames" (claim 1) and "generated by filtering frame based quality metrics over a period of more than one frame" (claim 9) require no construction. In claim 1, the phrase is recited in the straightforward context directed to *how* "long-term soft decision quality metrics are generated"—i.e., "by *filtering* frame based quality metrics over a plurality of frames." '199 patent, 15:47−49 (claim 1). Similarly, in claim 9, the phrase is recited in the context, "the long-term quality metrics being generated by *filtering* frame based quality metrics over a period of more than one frame." *Id.*, 16:21−23 (claim 9). When read in its informative context, the claim language is straightforward and requires no construction.

Huawei errs in offering a generalized construction for these distinct terms that departs from what is recited. While the respective limitations recited in claims 1 and 9 are similar, they are not identical. By offering a generalized construction for both disputed phrases, Huawei risks conflating two distinct phrases that are not expressly identical.

Huawei also errs in seeking to add limitations directed to *why* the long-term quality metrics are generated. According to Huawei, the claim language should be construed as limiting in terms

of an intended purpose—i.e., "… in order to reject those long-term soft decision quality metrics that are unwanted." The *subjective* word "unwanted" does not appear within the four corners of the '199 patent, much less as an unambiguous requirement for the claim language in question. Moreover, the claim language is not expressly limiting in terms of *why* the long-term quality metrics are generated. Rather, the phrases are each limiting in terms of *how* the metrics are generated—i.e., "… by filtering frame based quality metrics over a plurality of frames" (claim 1), or "… by filtering frame based quality metrics over a period of more than one frame" (claim 9).

For the foregoing reasons, Huawei's untethered construction should be rejected as untethered to the claim language as issued and impermissibly seeking to add extraneous limitations not unambiguously required by the intrinsic evidence. *See, e.g.*, *Cont'l Circuits,* 915 F.3d at 796–97; *Dayco Prods.*, 258 F.3d at 1327.

C. The "means for" terms of the '199 patent

The parties agree that certain "means for" terms of the '199 patent are each subject to means-plus-function construction under 35 U.S.C. § 112, ¶6. The parties further agree as to the respective functional language recited in each identified "means for" term. While the parties also have some commonality in their respective identification of corresponding structure disclosed in the specification, what follows is an explanation of issues that remain in dispute.

A means-plus-function clause does not embrace all structure disclosed in the written description, but as § 112(f) (formerly § 112 ¶ 6) dictates, it only embraces the "corresponding structure" of the recited means—i.e., the structure disclosed in the written description and affirmatively identified as accomplishing the claimed function. The Federal Circuit has instructed,

> [S]tructure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim. This duty to link or associate structure in the specification to function is the *quid pro quo* for the convenience of employing § 112, ¶ 6.

B. Braun Medical, Inc. v. Abbott Laboratories, 124 F.3d 1419, 1424 (Fed. Cir. 1997).

4. "means for generating soft decision quality metrics from a decoding process for a received channel quality indicator (CQI)" (claim 9)

WSOU's Position	Huawei's Position
Subject to 35 U.S.C. § 112, ¶6. **Function:** "generating soft decision quality metrics from a decoding process for a received channel quality indicator (CQI)" **Structure**: CQI recovery/decoding unit; CQI metric generation unit; and equivalents thereof.[5]	**Subject to 35 U.S.C. § 112, ¶6.** **Function:** "generating soft decision quality metrics from a decoding process for a received channel quality indicator (CQI)" **Structure:** a base station that includes a CQI recovery/decoding unit, CQI metric generation unit, and a decision making unit, and equivalents thereof.

As shown in the table above, the parties agree that the "means for generating …" term is subject to 35 U.S.C. § 112, ¶6 and that the function is "generating soft decision quality metrics from a decoding process for a received channel quality indicator (CQI)." The parties disagree, however, as to whether the structure should be restricted to necessarily require *all* the components Huawei has identified. The dispute is perhaps best explained with reference to Figure 1 of the '199 patent, reproduced above. *See supra*, § III.A.

As shown in Figure 1, the base station 12 may include (among other components) a CQI Recover/Decoding Unit and a CQI generation Unit 32. The specification includes a description of these components, according to an example embodiment, as follows:

> With the demodulated signal, the CQI recovery/decoding unit 30 and the CQI metric generation unit 32 may generate and provide metrics that relate to the CQI and quality of the R-CQICH. Specifically, the CQI recovery/decoding unit 30 may receive signals from the wireless unit 18 and decode the demodulated signals through generating and comparing the CQI decoding/decision metrics. The CQI decoding/decision metrics, which may be referenced individually as decoding metrics or decision metrics,

[5] The structure identified here is intended to encompass relevant descriptions appearing throughout the specification. In disclosures served on opposing counsel prior to the instant brief, WSOU had identified the following exemplary disclosure of the '199 patent as relevant to the understanding of the corresponding structure for this term: Fig. 1 (rake receiver 28, CQI recovery/decoding unit 30, and a CQI metric generation unit 32); Fig. 8; 4:57−5:13; 5:17−21; 6:13−49; 10:17−11:45; 12:4−53; 13:58−15:38; 16:42−46; 16:47−49, etc.

> represent the CQI quality levels for full or differential reports respectively. The decoding and decision metrics are then provided to the CQI metric generation unit 32. The CQI metric generation unit 32 may further process the metrics and associated signals to provide metrics to the decision making unit 34. The metrics may include short-term quality metrics and long-term quality metrics for both full and differential modes.

Id., 6:34−49. The above passage identifies the CQI recovery/decoding unit 30 and, *optionally*, the CQI metric generation unit 32 as structure that may generate and provide metrics that relate to the CQI and quality of the R-CQICH. To suggest both of those components are necessarily required for all embodiments overlooks the repeated use of the word "may," including in the statement, "[t]he CQI metric generation unit 32 *may* further process the metrics and associated signals to provide metrics to the decision making unit 34." *Id*. (emphasis added). This disclosure also confirms that the decision making unit 34 is not necessarily required structure for *generating* soft decision quality metrics, as such metrics "may" simply be provided to the decision making unit 34 sometime after generation. *Id*.

In view of the exemplary disclosure summarized above, the corresponding structure for the "means for generating …" term encompasses the CQI recovery/decoding unit, the CQI metric generation unit, and equivalents of either. Huawei errs in seeking to limit the corresponding structure to necessarily require "a base station that includes a CQI recovery/decoding unit, CQI metric generation unit, *and* a decision making unit." At a minimum, Huawei errs in seeking to *require* each one of those *three* named units. As shown above, the specification expressly states otherwise.

Huawei also errs in asserting that the base station 12 itself should be deemed *required* structure for accomplishing the claimed functionality. The specification provides at least the following relevant disclosure on this point:

> It should be understood that the rake receiver 28, CQI recovery/decoding unit 30, CQI metric generation unit 32 and decision making unit 34 are merely an example of hardware devices or routines that may be designed using the techniques described herein. For instance, these components may

> be implemented as a software program, such as routines or code, as a firmware or hardware component, such as a field programmable gate array (FPGA), a digital signal processor (DSP), an application specific integrated circuit (ASIC), and/or a combination of these hardware components.

Id., 15:20−29. Notably absent from the above description of units 30 and 32 is any mention of a base station as necessary structure for the claimed functionality at issue here. Thus, while WSOU agrees that the base station *may* contain the exemplary component(s) which *may* be used to perform the recited function, it would be error to construe the "means for generating …" term to *require* a base station itself to implement the claimed functionality.

5. "means for comparing at least one of the quality metrics to a quality setting" (claim 9)

1. WSOU's Position	Huawei's Position
Subject to 35 U.S.C. § 112, ¶6. **Function**: "comparing at least one of quality metrics to a quality setting" **Structure:** decision making unit 34, and equivalents thereof.[6]	**Subject to 35 U.S.C. § 112, ¶6** **Function:** "comparing at least one of the quality metrics to a quality setting" **Structure:** decision making unit 34, and equivalents thereof.

As shown in the table above, the parties appear to have reached agreement regarding the proper construction of this term, including its corresponding function and structure.

6. "means for determining whether to dynamically adjust a CQI channel configuration based on the comparison" (claim 9)

WSOU's Position	Huawei's Position
Subject to 35 U.S.C. § 112, ¶6. **Function:** "determining whether to dynamically adjust a CQI channel	**Subject to 35 U.S.C. § 112, ¶6.** **Function: "**determining whether to dynamically adjust a CQI channel

[6] The structure identified here is intended to encompass, though not necessarily require, relevant descriptions of example embodiments appearing throughout the specification. *See, e.g.*, Fig. 1 (decision making unit 34); Figs. 2−9; 5:17−21; 6:50−57; 7:6−11; 7:15−18; 7:25−45; 7:51−61; 8:13−36; 8:64−67; 9:29−34; 9:64−66; 10:13−16; 11:46−56; 13:12−35; 15:20−38; 16:28−41; 16:47−49; etc.

configuration based on the comparison" **Structure:** decision making unit 34, and equivalents thereof.[7]	configuration based on the comparison" **Structure:** decision making unit 34, and equivalents thereof.

As shown in the table above, the parties appear to have reached agreement regarding the proper construction of this term, including its corresponding function and structure.

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Respectfully submitted,

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[7] The structure identified here is intended to encompass, though not necessarily require, relevant descriptions of example embodiments appearing throughout the specification. *See*, *e.g.*, Fig. 1 (decision making unit 34); Figs. 2−13; 5:17−21; 6:55−7:5; 7:11−14; 7:45−50; 7:61−65; 8:26−33; 9:34−44; 10:11−13; 11:57−60; 15:20−38; 16:47−49; etc.

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CERTIFICATE OF SERVICE

A true and correct copy of the foregoing instrument was served or delivered electronically via U.S. District Court [LIVE]- Document Filing System, to all counsel of record, on this the 30th day of February 5, 2021.

/s/ Ryan S. Loveless
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